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(WO/2002/075650) HARDWARE DESIGN USING EVOLUTION ALGORITHMS

Biblio. Data **Description** **Claims** **National Phase** **Notices** **Documents**

Latest bibliographic data on file with the International Bureau

Publication Number: WO/2002/075650 International Application No.: PCT/GB2002/001157

Publication Date: 26.09.2002

Publication Date: 28.09.2002

International Application No.: PCT/GB2003/001157

International Application No.: PCT/GB2003/000303
International Filing Date: 13.03.2003

Int. Class.: G06F 17/50 (2006.01) G06N 3/12 (2006.01)

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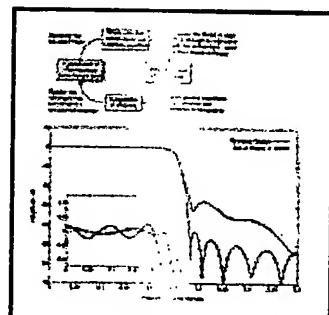
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Priority Data: 0106459.1 15.03.2001 GB

Title: HARDWARE DESIGN USING EVOLUTION ALGORITHMS

Abstract: The design of a hardware component such as a digital filter can be optimised by taking an initial population of filter designs and encoding them as chromosomes. The fitness of each chromosome is then evaluated and parent chromosomes are then selected based on the fitness criteria. Offspring chromosomes are then generated using genetic operations such as mutation and crossover from the pool of offspring, and optionally parents, individuals are selected to survive using a combination of Pareto fronts based on non-dominated individuals and clustering. The process is repeated or until a termination criteria is satisfied.



Designated States: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.
 African Regional Intellectual Property Org. (ARIPO) (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW)
 Eurasian Patent Organization (EAPO) (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM)
 European Patent Office (EPO) (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR).
 African Intellectual Property Organization (OAPI) (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Publication Language:

English (EN)